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Forage News [2021-10]

Department of Plant and Soil Sciences, University of Kentucky

UK Forage News

Keeping Forage-Livestock Producers in Kentucky Informed
Dr. Ray Smith and Krista Lea, editors
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KY Grazing Conference to focus on sustainable intensification of pasture management Oct. 26,27,28

Photo Matt Barton

Producers can choose the most convenient location to attend the 1 day KY Grazing Conference and learn how they can sustainably improve their pastures Conference. The program is a joint effort of the Kentucky Forage and Grassland Council, University of Kentucky Cooperative Extension Service and UK Master Grazer Program.

The offerings include Oct. 26 at the University of Kentucky Research and Education Center in Princeton, Oct. 27 at the Hardin County Extension office in Elizabethtown and Oct. 28 at the Clark County Extension office in Winchester. The program begins each day at 8 a.m. and ends at 3 p.m. local time.

UK specialists will discuss several topics during the event including weather trends and their grazing impacts, weed management, getting more bang from fertilizer, bale grazing, precision agriculture, designing flexible water and fencing systems and GRAZE, a program that balances available forages and livestock needs. Dr. Ed Rayburn, forage extension specialist from West Virginia University will join UK specialists to discuss pasture ecology. Preregistration is required to get the conference's reduced price of $35 per person. Attendees may also register at the door the day of the event, but registration costs increase to $50 per participant then. Registration for youth or students is $10. Registration information is available online on the UK Forage Extension website at **https://forages.ca.uky.edu/**. Once on the site, click on theUpcoming Events tab. For more information contact **Contact:** Carrie Thrailkill, **carrie.thrailkill@uky.edu**
~Katie Pratt, UK

Increased Late Spring Fescue Yield from Late Fall N Application the Previous Year

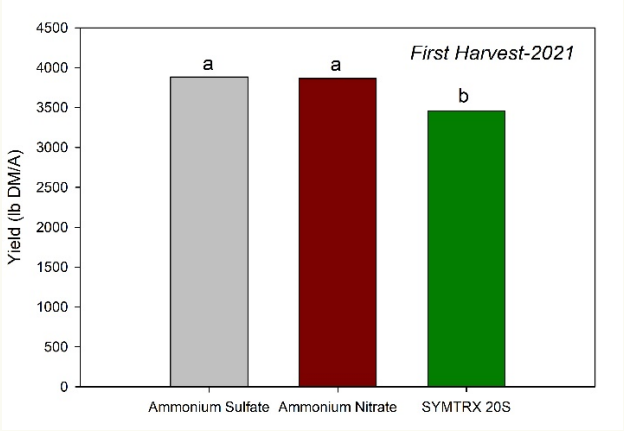
Classically, tall fescue stockpiling starts with 40 to 80 lb N/acre (Ritchey and McGrath, 2020) in August/ September. With good management before and after the stockpiling interval, and typical fall weather, stockpiling produces significant forage yield (10 to 30 lb dry matter/lb N; Poore and Drewnoski, 2010) and lower winter feed costs. However, the question of what to do, soil fertility-wise, with remaining cool season grass pastures and hay fields to improve their productivity next year, remains.

Figure 1a. (Above) Photo of the field trial on 15 March; 1b. (Below) Photo of field trial on 29 March.

One observation, from a turfgrass professional (A.J. Powell, pers. comm.), was that a late fall (November/ December) N application caused improved cool season grass tillering and competitiveness in the spring of the next year. More recent tall fescue research, from China (Han et al., 2014), supports that observation. These observations were the focus of a field trial begun in the fall of 2020 at the UK Research and Education Center near Princeton. Here, some of the first year's results are reported.

An established stand of tall fescue (Jesup MaxQ), managed for hay (2 previous cuttings earlier in 2020) was used. Three N sources (ammonium nitrate, 34-0-0; ammonium sulfate, 21-0-0-24S; SymTRX 20S, 16-1-0-20S) and 4 N rates (0, 30, 60, 90 lb N/acre) were used. SymTRX 20S is a product of Anuvia Plant Nutrients Inc. There were four replications of each of the 12 treatments. Fertilizer treatments were hand broadcast on 2 December 2020. On 1 April 2021, an application of ammonium nitrate, at 80 lb N/acre, was made across the entire field trial – to simulate usual spring N management for tall fescue.

Early growth and tillering were monitored weekly, starting on 15 March, with a rising plate meter. The N rate treatment differences were visible on that date (Figure 1a) and were even greater at the start of the third week (29 March, Figure 1b). The rising plate data supported the visual observations. No differences due to the N sources were apparent until the sixth week.



The first harvest was rain-delayed until 13 May, so the grass was somewhat beyond the desired boot stage of growth. There were large differences due to the late fall 2020 N rate (Figure 2a, averaged across the three N sources) and small differences due to N source (Figure 2b, averaged across the four N rates). There was no N rate by N source interaction.

Regardless the 80 lb N/acre applied on 1 April, the late fall N application increased dry matter yield at least 22 lb per pound of N. This value is well within the range of values for lb DM/lb N reported for fall fescue stockpiling followed by August/September N applications. The response indicates that the late fall N application caused the crop to emerge from the winter with greater capacity to respond to favorable early spring conditions. The response appears to 'taper off' a bit at the 90 lb N/ acre rate, suggesting that 60 lb N/acre was more optimal in causing forage dry matter formation.

Averaged across all N rates, the SymTRX 30S source gave significantly ($p < 0.10$) less forage dry matter (3460 lb DM/acre) than the other two N sources (average of 3875 lb DM/acre). Given the lack of difference between ammonium nitrate and ammonium sulfate, there was no value to added S.

Figure 2. Fescue dry matter yield response to: a) fertilizer N rate; b) fertilizer N source.

On average, a 60 lb N/acre application of one of these three N sources in very early December returned 20 to 25 lb DM per lb applied N. We caution the reader that these are the results of a single trial, for a single year. This research needs to be repeated. That said, the preliminary results are both surprising and quite promising, potentially giving producers another window of opportunity to push greater cool season grass productivity when additional forage is needed.

~ John H. Grove, Chris Teutsch and Josh Duckworth

References:

Han, Y. et al. 2014. Effects of seeding rate and nitrogen application on tall fescue seed production. Agronomy Journal 106:119-124. doi:10.2134/agronj2013.0326

Poore, M.H. and M.E. Drewnoski. 2010. Utilization of stockpiled tall fescue in winter grazing systems for beef cattle. Prof. Anim. Sci. 26:142-149.

Ritchey, E. and J. McGrath. 2020. AGR-1: 20-21 Lime and Nutrient Recommendations. Univ. Kentucky Coop. Extn. Svc. Lexington. http://www2.ca.uky.edu/agcomm/pubs/agr/agr1/agr1.pdf

Forage Timely Tips: October

- ✓ Feed hay as needed to allow cool-season pastures to accumulate forage growth for winter grazing.
- ✓ Do NOT harvest or graze alfalfa fields in Oct.
- ✓ Inventory and test each hay lot for forage quality value and consult a nutritionist to design a supplementation program as needed.
- ✓ Remove ruminants from pastures that contain sorghum species (forage sorghums, sorghum-sudangrass hybrids, sudangrass, and johnsongrass) when frost is expected. Even small patches of johnsongrass that have been frosted can cause prussic acid poisoning.
- ✓ Begin strip grazing early planted small grain and brassicas (turnips and rape) mixes by the end of this month.

Upcoming Events (see Forage website for details and to register, click on EVENTS)

Oct 14—Big Spring Farm Pasture Walk
Oct 26—KY Grazing Conf., Princeton
Oct 27—KY Grazing Conf., Elizabethtown
Oct 28—KY Grazing Conf., Winchester
Oct 25-29—Joint International Grassland/Rangeland Congress, Virtual
Nov 9—KY Fencing School, Grand Rivers
Nov 11—KY Fencing School, Frankfort
Feb 24, 2022—Kentucky Alfalfa and Stored Forage Conference, Bowling Green

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Regional Fencing Schools coming in November

The University of Kentucky will host two regional fencing schools this fall to help livestock producers learn the newest fencing techniques and sound fence construction. The fall fencing schools will occur Nov. 9 at the Grand Rivers Community Center in Livingston County and Nov. 11 at Kentucky State University's Harold R. Benson Research and Demonstration Farm in Frankfort. The schools begin at 7:30 a.m. and conclude at 4:30 p.m. local time. The Frankfort school will have a special focus on fencing for small ruminants. Chris Teutsch, UK forage extension specialist, started these one-day events in 2018 in Kentucky to help producers improve their grazing management.

"If you have ever driven around the countryside, there are a lot of fences but not a lot of well-constructed ones," said Teutsch, extension associate professor in the UK College of Agriculture, Food and Environment. "One of the goals of this school is to help people get the basics of fencing down. That way they can build a strong, durable fence that will last 25 or 30 years, or if they decide to hire a contractor to build it for them, they will know what a well-constructed fence looks like." UK specialists and fencing industry experts will use a mixture of classroom instruction and hands-on demonstrations to teach producers the basics of a well-built fence. An added bonus of the school is that the techniques producers learn can help them qualify for cost-share dollars from the Natural Resources Conservation Service for new fence construction.

Each school is limited to 30 participants, and the cost is $30 per person. This cost covers lunch, a fencing notebook and safety gear. Participants are encouraged to bring leather gloves for the hands-on portion of the school. Those interested in attending can register online at https://2021fallfencingschoolgrandrivers.eventbrite.com for the Grand Rivers' location and https://2021fallfencingschoolfrankfort.eventbrite.com to attend the Frankfort event. Producers can also from the UK Forages Extension website and mail the completed form and payment to Carrie Thrailkill, UK Research and Education Center, 348 University Drive, Princeton, KY, 42445.

Producers are encouraged to register early, as spots will fill quickly. The registration deadline for each location is two weeks prior to the workshop. During the events, participants must follow current COVID-19 protocols. KFGC, UK Coop. Extension Service and KY Master Grazer Educational Program organize and sponsor the schools. Additional sponsors include KY State Univ. Coop. Extension Service, KY Ag. Development Fund and the KY Beef Network. Industry partners include Stay-Tuff Fencing, Gallagher USA, ACI Distributors and Ideal Farm Equipment. ~ Katie Pratt

UK Alum among NAFA grant awardees

USDA's National Institute of Food and Agriculture (NIFA) recently awarded funding to five alfalfa-related research projects through the Alfalfa Seed and Alfalfa Forage Systems Research Program (ASAFS). The ASAFS, now in its eighth year, was created to support integrated, collaborative research and technology transfer to improve the efficiency and sustainability of alfalfa forage and seed production systems. The program encourages projects that establish multi-disciplinary networks to address priority national or regional science needs of the alfalfa industry. Over the course of the eight-year program, more than $18 million has been dedicated to 54 alfalfa research projects, demonstrating both the popularity of the program and the need for alfalfa research funding. Dr. Jennifer Tucker, UGA, was awarded more than $700k for her project, "Alfalfa Nutrient Preservation, Utilization and Cycling in Sustainable Southeastern Livestock Systems". Dr. Tucker is a native of Tompkinsville, Kentucky, and earned her PhD in 2010 with Dr. Glenn Aiken from the UK College of Agriculture, Food and Environment.

Pub of the Month: Growing Wheat for Forage AGR-263

Wheat is a multipurpose crop that can be used for cover crops, stored forage, or grazing. As much as 25% of Kentucky's wheat acreage is used for cover crop or forage rather than grain production. Wheat has excellent winter hardiness and can be sown later in the fall than barley. Wheat is a good choice for planting following corn or soybean harvest to capture residual nitrogen, build soil organic matter, and prevent erosion. Wheat provides high quality growth in early spring, but has limited fall production compared to grazing types of cereal rye. Wheat is well adapted to most soils in Kentucky, performing best on loamy, well-drained soils having medium to high fertility. Wheat will withstand wetter soils than barley or oats but tends to be less tolerant of poorly drained soils than rye or triticale. Download this publication from the forage website under the species tab or just google "UK Growing Wheat for Forage".

International Grassland and Rangeland Congress goes all virtual October 25-29

The Joint International Grasslands and Rangelands Congress planned for Nairobi, Kenya will now be an all virtual meeting from 25-29 October 2021. The virtual format will also allow many farmers, ranchers and pastoralists to attend. The virtual congress will include video tours highlighting research in Kenya and Kenya's famous Nature Conservancies which show how wildlife management can be integrated with livestock husbandry. There will be a Exhibition Hall with local and international companies and organisations. The scientific program is outstanding covering the gamut of grassland/rangeland topics including: grassland and rangeland ecology; forage production and utilization; livestock production systems; wildlife, tourism and multi-facets of grassland and rangeland; drought management and climate change in rangelands; pastoralism, social and policy issues; and capacity building, extension and governance. Go to the

website for full details http://2021kenya-igc-irc.rangelandcongress.org. Register for this International Congress for only $100 at https://igc-irc-2021.jdlp.com.au/

USDA RMA revises dates for insurance programs

Agricultural producers now will have until December 1 to make coverage decisions and complete reporting activities for the Pasture, Rangeland, and Forage Pilot Insurance Program (PRF). The U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA) is making this change and other updates to this policy based on feedback from stakeholders. "We want to offer flexibility to our nation's producers, which is why we are always listening to our customers and looking at ways to improve the process and products we provide to them," said RMA Acting Administrator Richard Flournoy. "The date changes will provide additional time to help producers who are busy preparing their operations for the winter."

PRF is a Rainfall Index crop insurance policy designed to aid agricultural producers in case of a lack of precipitation that affects available forage for livestock. The plan considers a decline in rainfall by comparing it with the historical average precipitation for the same area during the same period of time. PRF is designed to help protect a producer's livestock operation from the risks of forage loss. In 2020, producers insured almost 160 million acres and nearly 32,000 policies to protect $2.9 billion in liabilities.

RMA is revising the dates for the sales closing, acreage reporting, cancellation, and termination of the PRF insurance program from November 15 to December 1. For PRF, RMA is also increasing reporting flexibility by allowing the USDA's Farm Service Agency (FSA) acreage report (form FSA-578) to be used in conjunction with other documents to verify insurable interest.

Other changes to the plans include: Revising the definition of "veteran farmer or rancher" to allow a legal entity, comprised only of the veteran and their spouse, to qualify as a veteran farmer or rancher when a qualifying veteran has a non-veteran spouse; and Allowing a producer to report acreage as certified organic, or as acreage in transition to organic, when the producer has requested an organic certification by the acreage reporting date. A list of crop insurance agents is available at all USDA Service Centers and online at the RMA Agent Locator. Learn more about crop insurance and the modern farm safety net at rma.usda.gov.